DOCUMENT RESUME

ED 368 190 FL 021 948

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TITLE How Second Language Learners Respond to Central and Peripheral Content-Based Tasks.
PUB DATE Dec 93
NOTE 33p.; Paper presented at the International Conference on Language and Content (Hong Kong, December 1993).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Bilingual Education; *Class Activities; Classroom Techniques; College Students; Discourse Analysis; English (Second Language); Foreign Countries; Higher Education; High Schools; High School Students; Immersion Programs; Instructional Effectiveness; *Language Processing; *Language Role; Language Usage; *Learning Processes; Second Language Learning; *Second Languages
IDENTIFIERS British Columbia; Japan; *Repairs (Language); *Task Characteristics; Two Way Bilingual Education

ABSTRACT

A study investigated the use of content-based tasks as central and peripheral in second language instruction. Specifically, it examined the relative effects of such tasks that were either central to the syllabus, as sources of knowledge or skills in their own right, or peripheral, as occasional source of language practice. The study was conducted with three groups of students in summer immersion programs: 12 Japanese teenagers with 3 native English-speaking informants; 18 Japanese college students; and 17 adult and secondary-level native English-speaking students enrolled in a Japanese course. Data on language use patterns were gathered in bilingual dyadic exchanges between native English-speakers and Japanese counterparts. Central and peripheral content-based tasks were analyzed for knowledge structures and repair type. Results suggest that learners make a variety of knowledge available to each other during negotiation over content-central tasks, suggesting two-way bilingual education may provide a richer context for learning both language and content. Similarly, content-central tasks, which permit open access to content knowledge, provide richer, more diverse background and situationally relevant knowledge than would content-peripheral tasks. However, it is also concluded that planned, content-peripheral tasks can be useful in providing highly contextualized language use. (MSE)

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ED 368 190

HOW SECOND LANGUAGE LEARNERS RESPOND TO CENTRAL AND PERIPHERAL CONTENT-BASED TASKS

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Abstract

Research evidence suggests that task type influences second language learners' negotiation of task language. Does it also matter whether teachers employ content-based tasks at the centre of the instructional syllabus--as sources of knowledge or skills in their own right--or peripherally--as ad hoc sources of language practice--to the ways learners use the second language to clarify meaning and organize their talk? This paper compares content-central and content-peripheral task discourse produced in a two-way bilingual immersion program by Japanese high school and college ESL learners with their Canadian partners. Learners' use of clarification strategies and knowledge structures (e.g., sequence, cause-and-effect, explanation) during the two task formats are reported and implications for instructional planning outlined.

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HOW SECOND LANGUAGE LEARNERS RESPOND TO CENTRAL AND PERIPHERAL CONTENT-BASED TASKS

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Introduction

Bilingual immersion in Canada[1] has long been viewed as an effective alternative to instruction which occurs only in second language classrooms (*Safty, 1989, 1990; Lambert & Tucker, 1972*). The central issue which immersion has traditionally addressed is the learning of school subjects through the medium of a second language in order to achieve bilingual proficiency in the subjects taught. In Canada, and elsewhere, immersion programs have been launched against a background of public policy which values development of the ability to communicate in an alternative or official language with broad social or cultural currency. School subject curricula represent the most clearly defined contexts for operationalization of the values associated with bilingual immersion given the importance most societies attach to the kinds of skills and knowledge generated through exposure to academic content.

Beyond the desirability and efficacy of this traditional approach to immersion, however, lies the reality of increasing numbers of second language learners whose cultural and linguistic backgrounds lie outside of a model which assumes initial competence in an official or majority language. In a

multicultural society, what practical status can be afforded to the languages and cultures of children or adults who have not yet begun to function effectively either interpersonally or academically in an official language? Once the assumption of a common linguistic baseline has been removed, what alternative forms might language and content learning take when an immersion program makes explicit use of diverse language and cultural backgrounds as resources in an educational setting? The academic barriers facing learners in multicultural institutional settings have been a focus of attention in the literature (Cummins, 1983; Cummins & Swain, 1986). More recently, research has begun to assess alternative instructional strategies which make content in a second language accessible to learners who are able to employ background knowledge and skills acquired in a native language to tasks presented in the medium of instruction, i.e., the second language, particularly with respect to the ways knowledge in the target language is organized and used in given content areas (Mohan, 1986; Early, Mohan & Hooper, 1987; Early, & Tang, 1991; Tang, 1991, 1993).

Context for the study

The point at which the efficiencies of traditional approaches to bilingual immersion in Canada and multicultural learning of language through content converge, namely the emphasis on language as a medium rather than the object of

communication, provides the context for this study. Immersion will be treated broadly here as *activity engaging learners in sustained cognitive work on any facet of life which contains within its structure a body of practical and background knowledge, i.e., a content area* (*cf.* Mohan, 1986). This formulation removes immersion from its ideological underpinnings and suggests some of the contextual and situational qualities which actuate its educational potential. It broadens the notion of content to include both academic and non-academic dimensions (the theory and practice of geology, the theory and practice of canoeing, for example) and suggests the processes by which knowledge is communicated from sources of expertise to learners and between learners.

To the extent that at least two groups of second language learners are able to employ their languages and cultural knowledge collaboratively with respect to a content area, they may be said to be engaged in a form of *two-way bilingual immersion*, an approach to second language learning which has received only scant attention in the literature (see Christian, *et al.*, 1992; Snow, 1986). The current discussion about two-way bilingual immersion makes no assumptions about the *worth* of any given content area--the basis of all curriculum development (Peters, 1973)--nor does it claim any special status as a means of furthering multicultural education. Furthermore, the

potential of two-way immersion to bring multiple sources of background knowledge and experience to bear on learning has not been examined from the perspective of *task-based discourse in a second language* (Hatch, 1983, 1992; Long, 1981; Berwick, 1988, 1993), an area of research which treats learners' attempts to negotiate problematic content as sources of input towards acquisition of a second language (Long, 1983a, 1983b, 1985, 1989).

Accordingly, this study presents an initial perspective on the link between bilingual second language immersion contexts and learners' negotiation of content-based tasks occurring both inside and outside of second language classrooms. It focusses on the organization and pragmatic effects of talk which learners of two languages generate when their native languages and cultural knowledge are brought into contact and when they deal with each other and the demands of various tasks in both languages. It also examines the potential of this bilingual discourse to support both second language and second culture learning.

Task, content and second language learning

Research in task-based second language learning has clearly demonstrated a close relationship between task and language: Studies of task-based interaction in classrooms, in experimental settings and in non-classroom natural settings have suggested the responsiveness of learner language to such task variables as

direction of information flow and degree of shared background knowledge and information about the task (Long, 1980, 1981; Gass & Varonis, 1985a), rhetorical constraints (Ellis, 1987; Douglas & Selinker, 1985), the level of cooperation imposed by task goals (Duff, 1986). More generally, it appears that tasks which enforce reciprocal needs to clarify, expand or negotiate information generate material of use to learners' developing second language systems, much as is the case with second language learners engaged in focussed exchanges with native speakers in non-classroom settings. The *vertical constructions* Hatch reported (1983) in natural conversations between non-native and native speakers of English exemplify the cooperative construction of meaning, particularly cooperative exploration of lexical meaning, and reflect the relative efficiency certain forms of non-instructional discourse achieve in helping learners to alter or build on their current level of competence in a second langauge.

When this kind of cooperative talk is to be the medium of an *educational* activity, that is, when a teacher, for example, organizes learners in groups to exchange particular forms of language or content to assist learning of a second language, it becomes very difficult to make unambiguous predictions about how the intended organization of tasks will influence what learners actually say to each other or what they will learn. Given the

tentative state of knowledge about the educational effects of discourse processes during content-based tasks in a second language (Berwick, 1993; Pica, Kanagy & Falodun, 1993), it is not yet possible to claim that a given task characteristic predicts a particular kind of talk which in turn produces given learning outcomes. Based on current understanding of the relationship between task type and task language, however, it is possible to suggest how educational purposes may be realized through the kinds of *orientation to task* that teachers take when they begin to select learning activities for lessons or lesson segments. These orientations range from organizing learners' use of language and background knowledge in order to explore aspects of a content area to use of content-based materials and learners' background knowledge to explore certain facets of language (*Figure 1*).

Although various degrees of emphasis on content or language learning may be imagined along a continuum, it will be

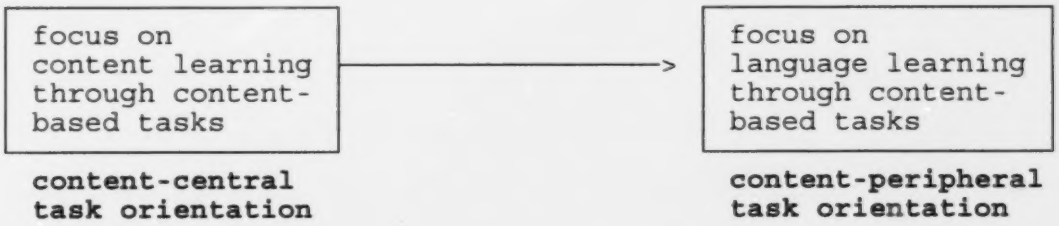

focus on content learning through content-based tasks
focus on language learning through content-based tasks
content-central task orientation
content-peripheral task orientation

Figure 1. Orientations to language and content in bilingual immersion

useful to simplify the functional possibilities into two basic categories: tasks primarily intended to develop learners' competence in a practical skill or subject knowledge other than use of a second language (*content-central tasks*) but requiring the use of the language to accomplish the task, and tasks designed specifically to afford learners opportunities to practice the second language as an adjunct to a language-centred instructional syllabus (*content-peripheral tasks*). Something of the difference between these two kinds of task has been captured in Long's (1990) distinction between *target tasks* and *pedagogical tasks*, and in empirical research which depicts the differences in language which emerge when learners are asked to engage in social versus didactic uses of the target language as a basis for language learning (Berwick, 1988; Ellis, 1984, 1985). For present purposes, the distinction leads directly to an examination of what each type of task offers to learners who bring together two sets of life experience and cultural background, two language backgrounds and an intention to learn each others' native language.

Method

Categories of analysis

An immersion perspective on learners' use of language to explore content during tasks suggests an approach to analysis which considers *both* the nature of the activity in which the

learners are engaged and the means they use to help each other achieve understanding within the bounds of the activity. The activity characteristics of tasks observed in the study will be examined through application of Mohan's (1986) Knowledge Framework (Figure 2). The Framework outlines six categories of activity within educational settings that reflect the range of background knowledge (classification, rules and evaluation) and practical knowledge (description, sequence and choice) learners encounter when they are exposed to content knowledge:

	Classification	**Principles**	**Evaluation**
Background Information	classifying categorizing defining	explaining predicting drawing conclusions generalizations (rules) hypothesizing	evaluating judging justifying recommending
Action Situation	observing describing naming comparing contrasting	time relations between events sequencing: spatially, steps	framing personal opinions making decisions
	Description	**Sequence**	**Choice**

Figure 2. General framework for knowledge structures (Mohan, 1986)

This study extends the notion of exposure to include the possibility that learners employ these *knowledge structures*, individually or in various combinations, in both native and second languages, to communicate background or practical knowledge to other learners in order to attend to the content demands of a task. The ways learners signal and repair misunderstandings over language used to conduct a task are viewed here as tactics learners use contingently to increase the comprehensibility of task language through negotiation and permit the task to move forward. The *exponents of repair* used in this study (Appendix A) include indications of lexical uncertainty, requests for clarification, confirmation checks, self-repetition, self-expansion, other-repetition, other-expansion and code switching--all of which have been applied to research documenting relationships between task type and task language (see, for example, Long, 1981; Porter, 1983; Gass & Varonis, 1985b; Berwick, 1988; Pica, 1987; Ross & Berwick, 1992, Berwick, 1993). Taken together, the knowledge structures and repair exponents are used here to compare content-central and content-peripheral tasks, to bring conceptual and empirical thinking in educational research to bear on a promising but largely unexamined area of educational practice and to indicate how specific features of two-way bilingual discourse may function to intensify the learning of both language and content.

Groups and participants

Participants in the study were drawn from three groups of second language learners involved in summer immersion programs conducted in Vancouver, British Columbia[2]:

1) *Group A:* 12 Japanese teenagers (average age, 15 years) from Tokyo and Osaka placed at the North Vancouver Outdoor Education Centre for a two-week immersion program; all had studied English at school for at least one year prior to arrival in Canada. Three native English speakers who had acquired basic conversational ability in Japanese in Japan, all senior secondary students, were assigned to the group as full-time informants. The six-member adult staff of the Centre served as native English speaking counsellors and group leaders; none in this staff group could speak Japanese. The daily program included classroom instruction in English and outdoor survival/recreational activities (fire-making, shelter construction, orienteering, canoeing) in addition to informal evening programs.

2) *Group B:* 18 second- and third-year university students (average age, 19 years) from the Osaka area with no previous overseas experience who lived with English-speaking host families during their 5-week immersion program at a community college. Members of the university group attended classes from 9 a.m. to 4 p.m. and evening events conducted both on and off campus, and participated in daily bilingual classroom activities and Friday

field trips with members of Group C (below).

3) *Group C:* 17 adult and secondary level students, ranging in age from 17 to 42, enrolled at the community college in a 5-week, summer Japanese language program including both credit and non-credit components. All members of the group were fluent speakers of English (although several spoke Cantonese and Mandarin as their native languages) and had attained the equivalent of at least one semester of Japanese study. Several members reported periods of residence and work in Japan (as an actor, a model, a telecommunications worker and two tourist industry workers). The group's immersion program mirrored that of Group B (the Japanese college students) and included daily morning and afternoon activities with members of Group B.

Collection and treatment of data

Observations and audio tape recording of Group A members' classroom, evening and outdoor activities were conducted during the second week of their program. During this period approximately 7 hours of 20-minute dyadic (two-person) bilingual exchanges between a native Japanese and a native English speaker were recorded and coded according to the site, content orientation and topic of the activity (e.g., NIN/SHELTER = North Vancouver Outdoor Education Centre, Content-central task, shelter construction).

About 8 hours of 20-minute bilingual dyadic exchanges

between members of Groups B and C were recorded during the fourth and fifth weeks of the parallel programs. The recorded exchanges included a variety of content-central and content-peripheral tasks and were coded, following the Group A model, to indicate site, content orientation and topic of each exchange (e.g., COUT/LEGO = College program, content-peripheral task, lego construction).

Most of the recording was accomplished with a portable walkman-type, voice-actuated cassette tape recorder and dual clip-on microphones leading into a junction and then into a common microphone jack on the recorder. This arrangement was especially useful for recording participants as they moved during the tasks. Voice actuation permitted the participants to work relatively freely at their tasks and offered continuous recording of normal, unbroken speech, including periods of up to four seconds of silence. Occasionally, a single, omni-directional table-top microphone was used when participants were seated at a table, permitting recording of several participants simultaneously.

Of the 15 hours of recorded dialogue for both Group A and Groups B and C combined, about 8 hours were eventually transcribed and further coded for knowledge structures and repair. During transcription, Japanese language utterances were translated and marked off in brackets. The accuracy of

transcribed and translated excerpts was checked and verified by a bilingual interpreter who was not involved in the initial process of transcription and translation, and revised when necessary. Transcripts produced from the North Vancouver and college tapes were treated as a single corpus. Transcripts coded for content-central and content-peripheral tasks were sampled and excerpted opportunistically to reflect typical coding ranges for these two task categories. Coded excerpts from the transcripts reflecting the use of knowledge structures and repair exponents (*Figure 3*) are reproduced and discussed below.

Knowledge Structure	CHOICE = Choice, CLASS = Classification, DESC = description, EVAL = evaluation, EXPLAN* = explanation, PRED* = prediction, PRINC = principles, RULES* = rules, SEQ = sequence
Repair Exponent	CLAR = clarification request, CONC = confirmation check, CS = code switch OEXP = other-expansion, OREP = other repetition, SEXP = self-expansion, SREP = self-repetition
Additional	[] = comment or translation, * = problem, C = Canadian, J = Japanese, LEARN = possible learning, + = half second pause

* subcategory of 'PRINC' (principles) in Knowledge Framework

Figure 3. Codes used in the excerpted transcripts by knowledge structure and repair exponent

Findings and interpretation

The relative complexity of content-central and content-peripheral tasks

Negotiation is clearly a factor in both task types as indicated by the repair work that occurs beyond the point at which a one of the participants introduces a 'problem' (coded as a '*') into the exchange. The content-peripheral tasks rarely occasioned recourse to any of the knowledge structures beyond description and sequence. Excerpt 1, for example, shows one learner attempting to convey information about a photograph to another who is responsible for reproducing the information graphically but who cannot view the photograph directly. The learners' use of such practical resources as description and sequence conformed to their preoccupation with visible referents and to ensuring an orderly reconstruction of the objects in the photograph. This level of preoccupation is evident in virtually all of the content-peripheral tasks (see Excerpt 3 below, for example) in which the information exchange develops in a stepwise fashion across a background of objects or relationships between objects.

[EXCERPT 1: Content-peripheral task - Picture Reconstruction]]

C:	Background of the picture, there is a roof and below the roof - it's a brick wall.	DESCC	1
J:	Background? Okay...	CONCJ SEQJ	
C:	In front of wall, there's poles stuck in the ground.	DESCC	5
J:	[Poles?] Pooru?	*J	
C:	Yes, poles.	SREPC	
J:	How many?	OEXPJ?	
C:	Aa + there close together + and then..	DESC SEQC	10
J:	/pole?	*J CONCJ	
J:	Pole?	*J CONCJ	
C:	And top of the middle pole..	DESCC	
J:	Uh hah.		
J:	Rego [?] (1) after mix rego + mix..	SEQJ	15
C:	Eeh?	*C	

Excerpt 2 from one of the content-central tasks, on the other hand, shows attention to a range of structures, including those which indicate participants' reference to states of mind entirely beyond the limits of the situation, and a complex, perhaps even roundabout examination of propositions and topics. Complexity of this sort is reflected in codings representing both major categories of the knowledge framework, those indicating

[EXCERPT 2: Content-central task - Nutrition]

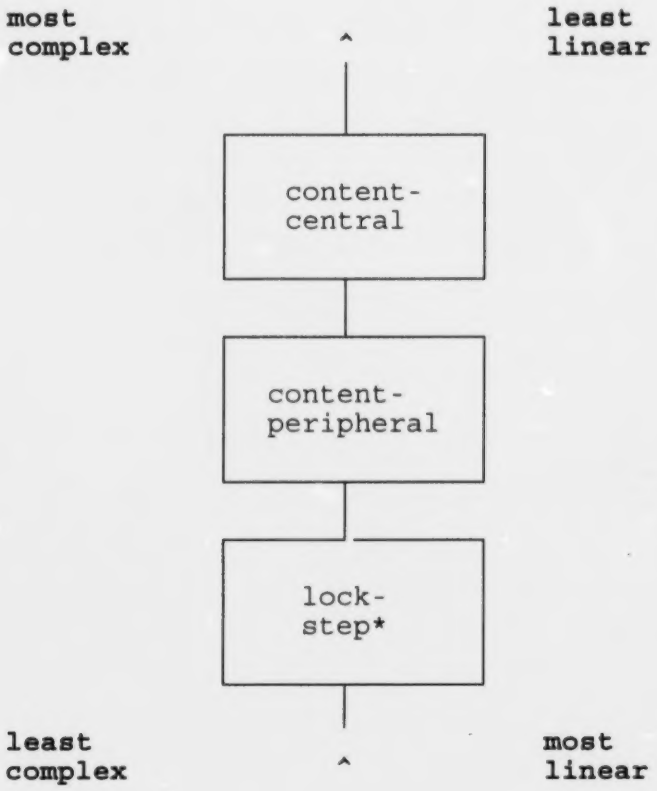
C:	Ah + nan - suki ++ desuka ++ nan de suki desuka?	CHOICEC?
J:	[What kind of food do you like?] No, nani ga suki desuka.	OEXPJ EVALJ?
C:	Sukidesuka?	*C
J:	Italian food.	CHOICEJ
C:	Oh, pizza, pasta.	CHOICEC
J:	Spaghetti.	CHOICEJ
C:	Tomato sauce.	CHOICEC
J:	Ufufufu....	
C:	Watashi[I] wa tomato... [Yes, what do you like?]	CHOICEC
J:	Hai. Nani ga suki desudka?	EVAL?
C:	Me? uum, me, too. Vegetables, mango.	CCLARC CHOICEC
J:	Mango? Mango!	CONCJ CHOICEJ
C:	Oh, mango is..	DESCC
J:	Frozen yogurt.	CHOICEJ
C:	Mango, cream cheese, frozen yogurt, on a waffle corn. Haa, I'm getting higher on that thought.	DESCC EVALC
J:	Yeah. I know, I know.	
C:	Your stomach is very big?	DESCC?/EVALJ?
J:	Yeah, hahaha....	
C:	That's the reason why I eat more than you do. I have - I have less oxygen, so I need more food.	PRINC/RULES EXPLANC
J:	I think - you + will - be fat.	PRINCJ/PREDJ

participants' interest in weaving *practical knowledge* (description, sequence and choice) as well as *background knowledge* (explanation, principles and evaluation of content) into their talk. The singleminded attention of participants in the content-peripheral

task to information exchange which leads as directly as possible to the goal is reflected in one of the participants' interest in demarcating stages of the task for the other ('okay', 'and then'). This form of marking, accomplished by the individual who has been given authority to direct the task, is largely absent in the content-central tasks which presumably would permit participants to abandon a topic in more conventional fashion, e.g., consensually.

Reference to conventional practice aside for the moment, perhaps the central distinguishing feature regarding the complexity of the two task types is the permeability of the speech situation to background knowledge and the effect the introduction of such knowledge has on opening tasks to a wider scope of negotiation. Content-peripheral tasks of the sort excerpted here certainly encourage negotiation of meaning, but their intended, focussed use as contexts for language practice appear to narrow the kinds of knowledge likely to contribute to achievement of the goal to knowledge of the concrete situation itself. Given a bilingual task context, recourse to objects or states within the limits of the task may well provide practical opportunities to extend development in a second language. The relatively greater permeability of content-central tasks to knowledge and information beyond the physical characteristics of the task itself, however, suggests one source at least for the range of knowledge structures learners incorporate into the task. These differences, then, also suggest

that tasks vary in terms of their complexity and structural development, i.e, their linearity. Indeed, it may be useful to propose a rough framework for these variables (*Figure 4*) ranging from the least complex and most linear flow of information



*adherence to the direction of an educational authority (e.g., teacher, textbook)

Figure 4. Hierarchy of task type by complexity and linearity

(lockstep exchanges controlled in minute detail by the teacher[1]) to

the most complex and least linear flow (learners' content-focussed talk which develops collaboratively during the course of the task). Movement up this hierarchy, moreover, places increasingly greater control over the topical range and appraisals of what comprise responsive contributions in the hands of the learners, although it apparently does not remove the obligation of these learners to deal with pedagogical goals underlying the task which has been set for them.

Lexical exploration and contingent development of content knowledge

Considerable lexical exploration is apparent in both kinds of tasks. It is much more frequently the case, however, that content-peripheral tasks produced attention to naming objects and operations essential for efficient movement through the task, whereas content-central tasks required more lexical exploration in the form of exchange of cultural background knowledge through language. Excerpt 3, for example, shows abundant code switching and translation in the form of self-expansions or redescriptions. 'Ibo' is the Japanese speaker's preferred redescription of 'circle'; a number of attempts to convey the various Japanese terms for 'join', 'attach' or 'combine' are negotiated and eventually accepted by the Canadian partner, as are the English terms by the speaker of Japanese.

[EXCERPT 3: Content-peripheral task - Lego]

J: Like circle on the regos. Two same regos mix.	DESCJ ['MIX']	1
C: Okay.		
.		
. [continues]		
.		
J: [warts]		5
Two ibo.	DESCJ	
C: Holes?	*C ['IBO']	
J: Two ibo.	SREPJ	
C: Okay, I think I know.	[LEARN IBO?]	
J: [combine, attach]		10
Two ibo o gattai, hittsukeru.	[COMBINE/ATTACH]	
C: Haa?	*C	
J: [A solid lego]		
Rittai no rego ni.		
C: Futatsu no Y[two Ys]?	CSC CLARC	15
J: [Small wart with two circle.]		
Futatsu no ibo o motte iru sumooru ibo.	OEXPJ	
C: Join?	CLARC ['JOIN']	
J: /Yeah, join! Back - back side.	CSJ [USE JOIN]	
Okay?	CONCJ	20
C: Ah, yeah, okay. I think I'm okay.		
J: Two circle has ++ join under..	[LEARN 'JOIN']	
C: Okay.		
J: [Small rectangle]		
Chiisai choohookei		25
C: Chiisai ++ okay ++ chiisai choohookei	OREPC	
J: Chisai choohookei to ++	SREPJ SEQJ	
C: /Ah hah		
J: Square - small square ++	* CSJ	
C: Small square? - ah - I think so.		30
J: [then, that, combine that long rectangle]	DESCJ	
de, sono ++ sono nagai choohookei o kutsukete	SEQJ [COMBINE]	
[please]		
kudasai.		
C: Ah? ++ hahaha	*C	35
J: /hahaha		
.		
. [continues]		
.		
C: Okay - chiisai choohokei	[USE 'CHOO.']	40
J: [please combine]		
to tsunagi awasete kudasai.	SEQJ [COMBINE]	
C: Ah?	*C CLARC	
J: Tsunagi awaseru	SEXPJ [SIMPLE]	
C: Combine? ++ okay (3) together?	CONC CLARC	45

Rapid lexical development in both languages is conspicuous in this excerpt as it is in other transcriptions of content-peripheral tasks which place participants into a concrete world of objects and

operations. The salience of the situation may serve an enabling element of the task and assist oral clarification much as key visuals promote comprehension of knowledge structures as they occur in written texts (Tang, 1991). Participants' exchange of content appears defined, in fact, by attempts to relate practical information about the situation from speaker to interlocutor.

The next excerpt (Excerpt 4) is drawn from a map reading task which revolves around the location of map referents and selection of a meeting place. The cultural knowledge exchanged in both languages by both sets of participants suggests how rapidly a content-central task can expand to accommodate both situational and cultural knowledge on demand.

[EXCERPT 4: Content-central task - Map reading]

J1: [Where? where?]	1
Doko? Dokode? downtown no	CHOICEJ/DECIS?
J2: [Where is the best place?]	
Dokoga ichiban iikana?	OEXPJ EVALJ?
J1: [Waterfront station] [Too far, well..]	
uwataafuronto eki Too sugiruka.	EVALJ? *J 5
J2: /[Too far]	
Toosugiru	EVALJ
C : Waterfront is better.	EVALC [PRON.]
/[Is Waterfront OK too?]	
J2: /Aa - Waterfront mo ii?	OREPJ EVALJ?
C : Parking ?[word]	10
C : Waterfront no Canada place	SEXPC CSC
J1: Best! Canada place	EVALJ CHOICEJ
J2: Waterfront no eki?	CLARJ
C : Oh yeah	
J2: When	15
J1: /uun	
C : Let's ten.	[E-J]
J1: Here's - a big station?	DESCJ
J2: [There's parking here - on the way to gastown]	
Kocchini paakingu de - kocchini ittara	DESCJ PRINCJ 20
gasutaun.	PRINCJ *
J1: Gastown station + yeah ++ This is a -	OEXPJ
C : /Okay	
so - go to gastown? Do you like gastown?	CHOICEC? EVALC?

J1: [In front of the station.]	25
Eki no mae.	*
J2: Entoransu.[entrance] - entoransu	OEXPJ [J-E]
C : [?word]	*
J1: You know - you know + where's the seabus?	SEXPJ
J2: Spaiku, spaiku[?word]	30
C : One of the -	
J2: /Gastown is here - seabus is here.	[USE 'GASTOWN']

What is interesting about this kind of task is the extent to which the participants use multiple sources of knowledge to construct a solution to the task which is simply not predictable in its detail or topical development. Inspection of the excerpt illustrates the contingent nature of content exploration under conditions which permit relatively unrestricted verbal exchanges and highlights the incidental, incremental nature of learning during these kinds of exchanges.

Here, as in other content-central tasks, the Japanese and English language alternatives are employed at least as often to introduce and develop ideas as to clarify them (clarification via code-switching representing a *preferred* method of learners in both language groups in the content-peripheral tasks). New language forms and cultural knowledge are put up for inspection and turned into conversational resources in contextually manageable bits--and apparently taken in by those who need them or are perceived as needing them: 'uwataafuronto' (the Japanese speaker's rendering of a point on the map) becomes 'Waterfront' for that speaker through the preemption of the Canadian partner; 'Waterfront' becomes the station of choice for travellers to 'Gastown' following the

Canadian partner's authoritative recommendation; the two Japanese speakers transform 'Eki no mae' into 'entoransu' and then into 'you know + where's the seabus' for the benefit of the Canadian who gives some evidence of lexical uncertainty, and so on throughout the task. All of the participants know how to build this scaffolding; it is the collaborative process of helping each other to climb it, however, that brings novel linguistic and cultural assets into play.

Discussion and Conclusion

Placing two-way bilingual tasks into an immersion framework requires some effort to understand the processes of immersion as elaboration of texts--that is, learners' use of language--associated with a content area. The ways learners construct these texts is heavily task-dependent in the sense that different tasks promote quite different forms of contextual support for learners' display or use of knowledge, and for opportunities to acquire knowledge. The relatively complex, non-linear structure of the content-central tasks examined in this study cannot be taken as an indication of the absolute difficulty of these kinds of tasks. To the contrary, the notion of a task hierarchy (Figure 4) is concerned with an expanding scope of collaboration and flow of information from lockstep instruction to content-centred interaction between learners, not with increasing task difficulty. Given the varieties of knowledge which learners make available to

each other during their negotiation over content-central task demands, it is possible to see how two-way, bilingual interaction provides a potentially richer field for learning both language and content than would be the case if learners were restricted to a single language or a single source of background knowledge.

Similarly, findings in this study related to use of knowledge structures (including especially classification, principles and evaluation) and repair exponents suggest that tasks which permit open access to content knowledge (content-central tasks) provide learners a richer, more diverse field of background and situationally relevant knowledge upon which to draw than tasks which are staged mainly to practice language (content-peripheral tasks). This line of empirical reasoning makes it possible to view bilingual, content-central tasks as relatively efficient educational contexts for language socialization (Schieffelin, & Ochs, 1986) which begin to approach the efficiencies of socialization--language and otherwise--in "natural" settings (see, for example, Cicourel's discussions (1987, 1988) on the acquisition of medical diagnostic reasoning).

Reference to learning in natural settings should not, of course, be taken as an argument for throwing learners out of classrooms and into full-scale immersion in field experience. Classrooms are natural settings too and offer opportunities to effect educational values in structured ways. This is, after all,

a fundamental concern of educational research and the basis of the present discussion about tasks as potential immersion contexts for second language learners--in effect the shaping of educational activity in order to draw upon knowledge of processes which promote learners' expertise. As *planned* activities, the bilingual, content-peripheral tasks evince this quality of purposeful work as much as the content-central tasks do and appear a practical approach to lexical development: They provide for highly contextualized use of language which revolves around negotiation of terms in at least two languages that learners use to convey description, sequence and choice. This is, perhaps, a refinement of the general argument researchers have made on behalf of tasks which promote negotiated interaction, that is, the "good" face of task-based interaction in classrooms. On the other hand, the unique characteristics of bilingual interaction during tasks, including the sharing of multiple sources of background knowledge in the languages of task participants, also create a special class of problems which have yet to be examined systematically. Among these, as the data in the present study indicate, is the possibility that tasks which allow learners the freedom to negotiate meaning in more than one language will promote the acquisition of a pidgin. Considering the tacit immersion contexts which content-based tasks create for learners, a useful but restricted code may develop during two-way bilingual interaction in

classrooms for the same reasons it develops outside of educational settings (Holm, 1988).

What the data presented here reveal most prominently is that learners' will use their own resources and those available in the task setting effectively when afforded opportunities to do so. As content becomes the fulcrum for exchange of information, and as more forms of background knowledge are drawn into the range of task resources, learners' language becomes an increasingly powerful, complex medium of exchange. In a sense, the display of competence to deal with the demands of the task appears to expand well beyond the limits ordinarily imposed, for example, when learners are tested for evidence of language learning or asked to practice what they have been asked to learn. The appearance of expanded competence is arguably a function of the kind of breadth of interaction which bilingual, content-central collaboration encourages, much as would be the case if learners could be observed repeatedly over an extended period during monolingual exchanges with sources of expertise in a content area. More to the point is the potential of these kinds of tasks to animate what learners know and to encourage repeated, wide-ranging, cooperative manoeuvres to resolve what they do not know.

Notes

[1]It should be recognized that the efficacy of bilingual immersion in the United States remains a subject of considerable controversy and seems inextricably bound to contending political and social perspectives (see, for example, Baker and de Kanter, 1981; Porter, 1990; Meier & Fienberg, 1992; Editor, TESOL Quarterly, 1993). No attempt will be made here to examine the debate or the special frames of reference for programs and research which it has generated during the past three decades.

[2]The author wishes to acknowledge the support of teachers and administrative staff at Douglas College during the Bilingual Summer Program, and in particular the assistance of Tom Whalley, Department of English as a Second Language, and Tad Hosoi, Manager, Centre for International Education.

[3]Although lockstep teaching was not a facet of this study, the lockstep instructional pattern in second language classrooms (see Long *et al.*, 1976; Long & Porter, 1985; also Dinsmore, 1985) has served as something of a foil for task-based research over the years in that the term encapsulates the still conspicuous preference of teachers to exercise minute and sometimes insensitive control over all forms of talk in the classroom. Viewed from the perspective of content-based instruction, however, lockstep becomes a general category for traditional product- and teacher-centred forms of teaching, including lectures and other instructional formats which ensure direct control over the flow of information. Task-based learning comprises an alternative, process- and learner-centred approach to organizing educational activity that has only recently received systematic scrutiny as a field of second language educational research and practice (Gass & Crookes, 1993; also Nunan, 1989).

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Appendix A:

Exponents of Repair used in the Study

(1) *Clarification Request*: The listener indicates lack of understanding through an implied or explicit request for the speaker to expand or reformulate an utterance.

(2) *Code Switch*: A speaker uses an alternative language, typically a language understood by a listener, to clarify or expand information, or to express information more easily, within the speakers current or immediately following turn.

(3) *Comprehension Check:* A speaker checks whether the listener has understood the utterance.

(4) *Confirmation Check:* A speaker requests confirmation that the previous utterance has been heard correctly by repeating a word or phrase from the utterance and adding rising intonation.

(5) *Definition:* A speaker states what a word or phrase means, either in response to or in anticipation of the listener's lack of comprehension; the definition typically takes the form "A is a (type of) B".

(6) *Lexical Uncertainty:* Hesitant or tentative attempt to recall or properly employ a particular word; often characterized by repetitive production of incomplete or incorrect forms of the lexical item.

(7) *Self-expansion:* Partial or complete rephrasing of one's own utterance, often occurring within the speaker's turn but possibly occurring within the speaker's next turn.

(8) *Self-repetition:* Exact, partial or semantic (equivalent) repetition of one's previous utterance within five turns of that utterance. The self-repetition frequently occurs within the speaker's own turn.

(9) *Other-expansion:* Partial rephrasing of the previous speaker's utterance. Rephrasing typically includes new material in addition to the repetition.

(10) *Other-repetition:* Exact, partial or semantic repetition of the previous speaker's utterance within five turns of the utterance.